IN THE CLAIMS:

Please amend the claims as follows. The claims are in the format as required by 35 C.F.R. § 1.121.

1. (Currently Amended) A method, comprising mitigating interference between piconets including:

detecting interference between a first piconet and a second piconet,; and

ceasing transmission on a first set of bands wherein the first piconet ceases transmission by at least one of a plurality of devices on the first set of bands and the second piconet continues to utilize the first set of bands wherein at least the first set of bands is determined via coordination between the first piconet and the second piconet, wherein the first piconet corresponds to a first x-length code and the second piconet corresponds to a second x-length code different from the first x-length code each x length code corresponding to x number of dwell times and each dwell time corresponds to a band, such the first x-length code corresponds to a first band sequence and the second x-length code corresponds to a second band sequence different from the first band sequence and contention time between the first piconet and the second piconet does not exceed 1/x of the number of dwell times in the x-length code if each of the dwell times is of equal length and such the contention time between the first piconet and the second piconet does not exceed the longest dwell time if the dwell times are of different lengths.

2. (Original) The method of claim 1, further comprising

ceasing transmission on a second set of bands wherein the second piconet ceases transmission by at least one of another plurality of devices on the second set of bands and the first piconet continues to utilize the second set of bands.

3. (Original) The method of claim 1, wherein ceasing transmission on the first set of bands is done for a predetermined time period.

4. (Original) The method of claim 3, wherein the first set of bands and the second set of bands are substantially orthogonal.

5. (Original) The method of claim 4, wherein the first set of bands and the second sets of bands substantially encompass a time coded frequency spectrum.

6. (Original) The method of claim 1, further comprising monitoring the first set of bands for activity, wherein the first set of bands is monitored by the first piconet.

7. (Original) The method of claim 6, further comprising resuming transmission by at least one of the plurality of devices on one or more of the bands in the first set of bands when no activity is detected on one or more bands within the first set of bands.

8. (Original) The method of claim 1, wherein detecting interference includes evaluating an error rate.

9. (Original) The method of claim 8, wherein the error rate is a bit error rate and the evaluation is done at the physical layer.

10. (Original) The method of claim 8, wherein the error rate is a packet error rate and the evaluation is done at the medium access control layer.

11. (Original) The method of claim 1, further comprising attempting to mitigate interference through the use of time division multiple access when interference is detected.

12. (Original) The method of claim 1, further comprising characterizing interference when interference is detected.

13. (Original) The method of claim 12, wherein characterizing includes channel assessment done in the physical layer.

14. (Currently Amended) A method, comprising mitigating interference between piconets, including:

detecting interference between a first piconet and a second piconet;

communicating between the first piconet and the second piconet wherein the first piconet corresponds to a first x-length code and the second piconet corresponds to a second x-length code different from the first x-length code, each x length code corresponding to x number of dwell times and each dwell time corresponds to a band, such the first x-length code corresponds to a first band sequence and the second x-length code corresponds to a second band sequence different from the first band sequence and contention time between the first piconet and the second piconet does not exceed 1/x of the number of dwell times in the x-length code if each of the dwell times is of equal length and such the contention time between the first piconet and the second piconet does not exceed the longest dwell time if the dwell times are of different lengths and wherein the communication includes establishing a first set of bands and a second set of bands; and

ceasing transmission on the first set of bands wherein the first piconet ceases transmission by at least one of a plurality of devices on the first set of bands and the second piconet continues to utilize the first set of bands.

15. (Original) The method of claim 14, further comprising ceasing transmission on a second set of bands wherein the second piconet ceases transmission by at least one of another plurality of devices on the second set of bands and the first piconet continues to utilize the second set of bands.

16. (Original) The method of claim 14, wherein ceasing transmission on the first set of bands is done for a predetermined time period.

17. (Original) The method of claim 14, further comprising keeping a history, wherein the first piconet keeps track of the sets of bands.

18. (Original) The method of claim 17, wherein establishing the first set of bands takes into account the history.

19. (Original) The method of claim 18, wherein the first set of bands and the second set of bands are substantially orthogonal.

20. (Original) The method of claim 19, wherein the first set of bands and the second sets of bands substantially encompass a time coded frequency spectrum.

21. (Original) The method of claim 14, further comprising monitoring the first set of bands, wherein the first set of bands is monitored by the first piconet.

22. (Original) The method of claim 21, further comprising resuming transmission by at least one of the plurality of devices on one or more of the bands in the first set of bands when no activity is detected on one or more bands within the first set of bands.

23. (Original) The method of claim 14, wherein detecting interference includes evaluating an error rate.

24. (Original) The method of claim 23, wherein the error rate is a bit error rate and the evaluation is done at the physical layer.

25. (Original) The method of claim 23, wherein the error rate is a packet error rate and the evaluation is done at the medium access control layer.

26. (Original) The method of claim 14, further comprising attempting to mitigate interference through the use of time division multiple access when interference is detected.

27. (Original) The method of claim 14, further comprising characterizing the interference when interference is detected.

28. (Original) The method of claim 27, wherein the characterizing includes channel assessment done in the physical layer.

29. (Currently Amended) A tangible electronic media, comprising instructions for mitigating interference between piconets, including instructions translatable for:

detecting interference between a first piconet and a second piconet wherein the first piconet corresponds to a first x-length code and the second piconet corresponds to a second x-length code different from the first x-length code each x length code corresponding to x number of dwell times and each dwell time corresponds to a band, such the first x-length code corresponds to a first band sequence and the second x-length code corresponds to a second band sequence different from the first band sequence and contention time between the first piconet and the second piconet does not exceed 1/x of the number of dwell times in the x-length code if each of the dwell times is of equal length and such the contention time between the first piconet and the second piconet does not exceed the longest dwell time if the dwell times are of different lengths; and

ceasing transmission on a first set of bands wherein the first piconet ceases transmission by at least one of a plurality of devices on the first set of bands and the second piconet continues to utilize the first set of bands wherein at least the first set of bands is determined via coordination between the first piconet and the second piconet.

30. (Original) The tangible electronic media of claim 29, further including instructions translatable for ceasing transmission on a second set of bands wherein the second piconet ceases transmission by at least one of another plurality of devices on the second set of bands and the first piconet continues to utilize the second set of bands.

31. (Original) The tangible electronic media of claim 29, wherein ceasing transmission on the first set of bands is done for a predetermined time period.

32. (Original) The tangible electronic media of claim 31, wherein the first set of bands and the second set of bands are substantially orthogonal.

33. (Original) The tangible electronic media of claim 32 wherein the first set of bands and the second sets of bands substantially encompass a time coded frequency spectrum.

34. (Original) The tangible electronic media of claim 29, further including instructions translatable for monitoring the first set of bands and the second set of bands for activity, wherein the first set of bands is monitored by the first piconet.

35. (Original) The tangible electronic media of claim 34, further including instructions translatable for resuming transmission by at least one of the plurality of devices on one or more of the bands in the first set of bands when no activity is detected on one or more bands within the first set of bands.

36. (Original) The tangible electronic media of claim 29, wherein detecting interference includes evaluating an error rate.

37. (Original) The tangible electronic media of claim 36, wherein the error rate is a bit error rate and the evaluation is done at the physical layer.

38. (Original) The tangible electronic media of claim 36, wherein the error rate is a packet error rate and the evaluation is done at.the medium access control layer.

39. (Original) The tangible electronic media of claim 29, further including instructions translatable for attempting to mitigate interference through the use of time division multiple access when interference is detected.

40. (Original) The tangible electronic media of claim 29, further including instructions translatable for characterizing interference when interference is detected.

41. (Original) The tangible electronic media of claim 40, wherein characterizing includes channel assessment done in the physical layer.

42. (Currently Amended) A tangible electronic media, comprising ~~a program~~ instructions for mitigating interference between piconets, containing instructions translatable for:

detecting interference between a first piconet and a second piconet wherein the first piconet corresponds to a first x-length code and the second piconet corresponds to a second x-length code different from the first x-length code each x length code corresponding to x number of dwell times and each dwell time corresponds to a band, such the first x-length code corresponds to a first band sequence and the second x-length code corresponds to a second band sequence different from the first band sequence and contention time between the first piconet and the second piconet does not exceed 1/x of the number of dwell times in the x-length code if each of the dwell times is of equal length and such the contention time between the first piconet and the second piconet does not exceed the longest dwell time if the dwell times are of different lengths;

communicating between the first piconet and the second piconet, wherein the communication includes establishing a first set of bands and a second set of bands; and

ceasing transmission on the first set of bands wherein the first piconet ceases transmission by at least one of a plurality of devices on the first set of bands and the second piconet continues to utilize the first set of bands.

43. (Original) The tangible electronic media of claim 42, further including instructions translatable for ceasing transmission on the second set of bands wherein the second piconet ceases transmission by at least one of another plurality of devices on the second set of bands and the first piconet continues to utilize the second set of bands.

44. (Original) The tangible electronic media of claim 42, wherein ceasing transmission on the first set of bands is done for a predetermined time period.

45. (Original) The tangible electronic media of claim 42, further including instructions translatable for keeping a history, wherein the first piconet keeps track of the sets of bands.

46. (Original) The tangible electronic media of claim 45, wherein establishing the first set of bands takes into account the history.

47. (Original) The tangible electronic media of claim 46, wherein the first set of bands and the second set of bands are substantially orthogonal.

48. (Original) The tangible electronic media of claim 47, wherein the first set of bands and the second set of bands substantially encompass a time coded frequency spectrum.

49. (Original) The tangible electronic media of claim 42, further including instructions translatable for monitoring the first set of bands and the second set of bands, wherein the first set of bands is monitored by the first piconet.

50. (Original) The tangible electronic media of claim 49, further including instructions translatable for resuming transmission by at least one of the plurality of devices on one or more of the bands in the first set of bands when no activity is detected on one or more bands within the first set of bands.

51. (Original) The tangible electronic media of claim 42, wherein detecting interference includes evaluating an error rate.

52. (Original) The tangible electronic media of claim 51, wherein the error rate is a bit error rate and the evaluation is done at the physical layer.

53. (Original) The tangible electronic media of claim 51, wherein the error rate is a packet error rate and the evaluation is done at the medium access control layer.

54. (Original) The tangible electronic media of claim 42, further including instructions translatable for attempting to mitigate interference through the use of time division multiple access when interference is detected.

55. (Original) The tangible electronic media of claim 42, further including instructions translatable for characterizing the interference when interference is detected.

56. (Original) The tangible electronic media of claim 55, wherein the characterizing includes channel assessment done in the physical layer.

57. (Currently Amended) An apparatus, comprising

a first piconet operable to mitigate interference between piconets; and

a device on the first piconet operable to detect interference between the first piconet and a second piconet, wherein the first piconet corresponds to a first x-length code and the second piconet corresponds to a second x-length code different from the first x-length code each x length code corresponding to x number of dwell times and each dwell time corresponds to a band, such the first x-length code corresponds to a first band sequence and the second x-length code corresponds to a second band sequence different from the first band sequence and contention time between the first piconet and the second piconet does not exceed 1/x of the number of dwell times in the x-length code if each of the dwell times is of equal length and such the contention time between the first piconet and the second piconet does not exceed the longest dwell time if the dwell times are of different lengths and wherein the first piconet is further operable to cease transmission by at least one of a plurality of devices on a first set of bands and continue transmitting on a second set of bands wherein at least the first set of bands is determined via coordination between the first piconet and the second piconet.

58. (Original) The apparatus of claim 57, further comprising a device on the second piconet operable to detect interference between the first piconet and the second piconet wherein the second piconet is further operable to cease transmission by at least one of another plurality of devices on the second set of bands and continue transmitting on the first set of bands.

59. (Original) The apparatus of claim 57, wherein ceasing transmission on the first set of bands is done for a predetermined time period.

60. (Original) The apparatus of claim 59, wherein the first set of bands and the second set of bands are substantially orthogonal.

61. (Original) The apparatus of claim 60, wherein the first set of bands and the second sets of bands substantially encompass a time coded frequency spectrum.

62. (Original) The apparatus of claim 57, wherein the first piconet is further operable to monitor the first set of bands and the second set of bands for activity, wherein the first set of bands is monitored by the first piconet.

63. (Original) The apparatus of claim 62, wherein the first piconet is further operable to resume transmission by at least one of the plurality of devices on one or more of the bands in the first set of bands when no activity is detected on one or more bands within the first set of bands.

64. (Original) The apparatus of claim 57, wherein detecting interference includes evaluating an error rate.

65. (Original) The apparatus of claim 64, wherein the error rate is a bit error rate and the evaluation is done at the physical layer.

66. (Original) The apparatus of claim 64, wherein the error rate is a packet error rate and the evaluation is done at the medium access control layer.

67. (Original) The apparatus of claim 57, wherein the first piconet is further operable to attempt to mitigate interference through the use of time division multiple access when interference is detected.

68. (Original) The apparatus of claim 57, wherein the first piconet is further operable to characterize interference when interference is detected.

69. (Original) The apparatus of claim 68, wherein characterizing includes channel assessment done in the physical layer.

70. (Currently Amended) An apparatus, comprising

a first piconet operable to mitigate interference between piconets; and

a device on the first piconet operable to detect interference between the first piconet and a second piconet, wherein the first piconet corresponds to a first x-length code and the second piconet corresponds to a second x-length code different from the first x-length code each x length code corresponding to x number of dwell times and each dwell time corresponds to a band, such the first x-length code corresponds to a first band sequence and the second x-length code corresponds to a second band sequence different from the first band sequence and contention time between the first piconet and the second piconet does not exceed 1/x of the number of dwell times in the x-length code if each of the dwell times is of equal length and such the contention time between the first piconet and the second piconet does not exceed the longest dwell time if the dwell times are of different lengths and wherein the first piconet is further operable to cease transmission by at least one of a plurality of devices on a first set of bands and continue transmitting on a second set of bands wherein the first set of bands and the second set of bands are established via communication between the first piconet and the second piconet.

71. (Original) The apparatus of claim 70, wherein the second piconet is further operable to cease transmission by at least one of another plurality of devices on the second set of bands and continue transmitting on the first set of bands.

72. (Original) The apparatus of claim 70, wherein ceasing transmission on the first set of bands is done for a predetermined time period.

73. (Original) The apparatus of claim 70, wherein the first piconet is further operable to keep a history, wherein the first piconet keeps track of the sets of bands.

74. (Original) The apparatus of claim 73, wherein establishing the first set of bands takes into account the history.

75. (Original) The apparatus of claim 74, wherein the first set of bands and the second set of bands are substantially orthogonal.

76. (Original) The apparatus of claim 75, wherein the first set of bands and the second sets of bands substantially encompass a time coded frequency spectrum.

77. (Original) The apparatus of claim 70, wherein the first piconet is further operable to monitor the first set of bands and the second set of bands, wherein the first set of bands is monitored by the first piconet.

78. (Original) The apparatus of claim 77, wherein the first piconet is further operable to resume transmission by at least one of the plurality of devices on one or more of the bands in the first set of bands when no activity is detected on one or more bands within the first set of bands.

79. (Original) The apparatus of claim 70, wherein detecting interference includes evaluating an error rate.

80. (Original) The apparatus of claim 79, wherein the error rate is a bit error rate and the evaluation is done at the physical layer.

81. (Original) The apparatus of claim 80, wherein the error rate is a packet error rate and the evaluation is done at the medium access control layer.

82. (Original) The apparatus of claim 70, wherein the first piconet is further operable to attempt to mitigate interference through the use of time division multiple access when interference is detected.

83. (Original) The apparatus of claim 70, wherein the first piconet is further operable to characterize the interference when interference is detected.

84. (Original) The apparatus of claim 83, wherein the characterizing includes channel assessment done in the physical layer.

85. (Currently Amended) A method, comprising mitigating interference between piconets including:

detecting interference between a first piconet and a second piconet wherein the first piconet corresponds to a first x-length code and the second piconet corresponds to a second x-length code different from the first x-length code each x length code corresponding to x number of dwell times and each dwell time corresponds to a band, such the first x-length code corresponds to a first band sequence and the second x-length code corresponds to a second band sequence different from the first band sequence and contention time between the first piconet and the second piconet does not exceed 1/x of the number of dwell times in the x-length code if each of the dwell times is of equal length and such the contention time between the first piconet and the second piconet does not exceed the longest dwell time if the dwell times are of different lengths; and

ceasing transmission on a first set of bands wherein the first piconet ceases transmission by at least one of a plurality of devices on the first set of bands and the second piconet continues to utilize the first set of bands wherein the first set of bands and the second set of bands are determined according to a universal sharing policy.